



Professional Headend Solutions

# Operating instructions



**19"/ 1 RU fan module with 3 ventilators**



**PLU 103  
Part N°: 2946.20**

*...Setting Signals*

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## 1. Safety and operating instructions

-  When assembling, starting-up and adjusting the module, it is necessary to consider the system specific references in the manual instruction.
-  The module may only be installed and started up by authorized technical personnel.
-  When assembling the module into the receiving points, the adherence of the EMC regulations is to be ensured.
-  The assembly and wiring have to be done without voltage. For installation, only the supplied accessories (DIN rail clip with screws and 19" accessories) may only be used.
-  If the voltage is supplied via the power supply module HELIOS, only the enclosed accessory cable is used. Alternatively, the power supply SNT 001 is to be used.
-  The mains voltage and the operating voltage of the module working by DC have to be in compliance to the operating parameters described in the technical data.
-  With all work the defaults of the DIN EN 50083 have to be considered. Especially the safety relevant execution of the DIN EN 60728-11[4] is necessary.
-  The unit is designed to be mounted horizontally in 19" cabinets or racks.
-  The ventilation slots and openings of all circulation assemblies are to be kept absolutely free. No items are to be put in the vents.
-  The assembly in a closed cabinet with no air exchange is not permitted.
-  When mounting it is to be noted that additional guide rails or support rails are used. A sole assembly on the front panel is not sufficient.
-  When cooling a assembled subrack BGT 684 (2946.01), note that the fan module is to be mounted without gap directly under the rack.

## 2. Device variants

PLU 103            2946.20 19"/ 1 RU fan module with 3 ventilators

## 3. General

The Smart Business Line (SBL) is a modern head end system, that is distinguished by its modular and compact design. A userfriendly operating concept facilitates setup, configuration and maintenance of the system.

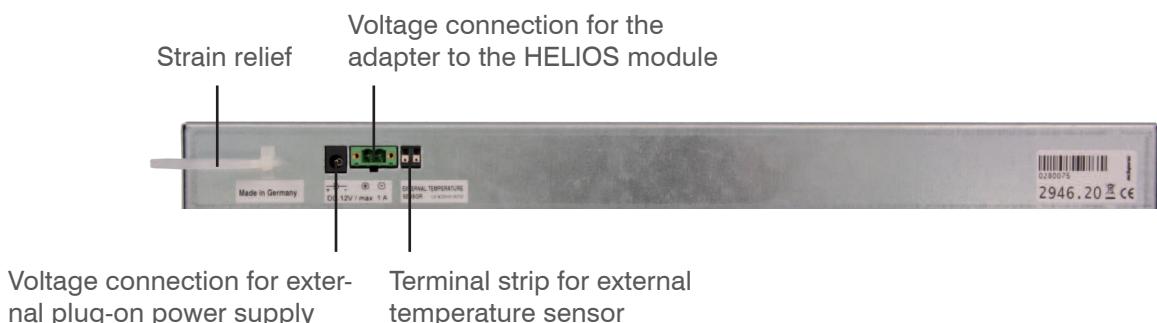
The fan module PLU 103 is a module of the SBL and is used for partial cooling of components of an assembled subrack BGT 684 in 19" cabinets or racks. Because of the dimensional characteristics of the 19" system, the prescribed distance between the modules for passive cooling is not observed. Therefore, the fan module is to be used when the SBL assemblies are installed in a 19" rack.

## 4. Explanation of the operating elements

### 4.1 Front view



### 4.2 Rear view



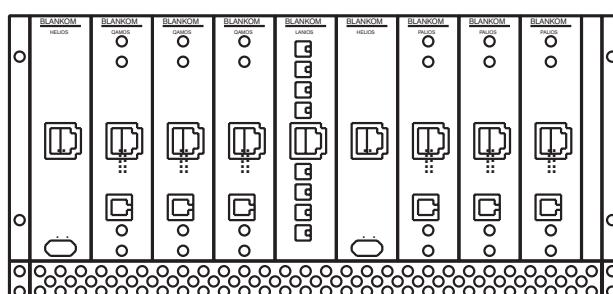
## 5. Functional description

The fan module PLU 103 is an active cooling assembly of the SBL for use in 19" racks and cabinets. The air is supplied via the front page. The three fans inside the unit generate a stream of air, that is discharged through the top panel. With the help of the device option DLF 001 (2946.21), the air supply can be supplemented from the bottom.

At an environmental temperature ranging from -10 to 35 °C, the fans run at 33 % of full power. Only at an ambient temperature > 35 °C the fans are made by an internal control to 100 % power. Furthermore, using the optional external temperature sensor TPS 001 (2946.22), the fan control to the local conditions are adapted. The increase in fan power will also depend on the external temperature sensor. Power is supplied via the enclosed accessory cable for connection to the power supply module HELIOS (5150.01). It is important to note the total power of the power supply. If the total power of the power supply is insufficient, the operation can also be done via the optional plug-on power supply SNT 001 (2946.23).

## 6. Application example

Fan box PLU 103 during assembly of SBL modules in 19"



BGT 684

PLU 103



## 7. Technical data

**Electrical characteristics**

Supply voltage	12 V DC
Max. current consumption	290 mA (at 33 %) 580 mA (at 100 %)
Max. power consumption	ca. 7 W
Connector variants	2.1 mm jack (plug-on power supply) 2 pole connector (accessory cable)
connector of the external temperature sensor	2 pole terminal strip
Fan noise	39 dBA (at 100 %)
Air flow rate	125 m³/h (at 33 %) 380 m³/h (at 100 %)

**Miscellaneous**

Dimensions (l x w x h)	482.6 x 44 x 183 mm (19")
Weight	2,500 g (without packaging and accessories)

**Delivery contents**

1x 19" assembly kit
1x 12 V connection cable
1x strain relief

**Environmental conditions**

Temperature range	-10 ... +70 °C
Relative humidity	≤ 80 % (not condensing)
Mounting method	horizontal
Mounting location	19" rack/ cabinet

## 8. Glossary

DIN  
EMC  
EN  
RU

Deutsches Institut für Normung (German standards institute)  
**Electromagnetic compatibility**  
**Europäische Norm** (European standard)  
**Rack unit**

## 9. Bibliography

[1] EN 60728-11: Cable networks for television signals, sound signals and interactive services Part 11: Safety (IEC 60728-11:2005); German version EN 60728-11:2005

[2] EN 50083-2 : Cabled distribution systems for television and sound signals. Electromagnetic compatibility for equipment; EN 50083-2:2001

## 10. History

Version	Date	Modification	Author
1.00	30.06.2011	basic document	Häußer

Options available upon request. Subjects to changes due to technical progress.

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# CE Declaration of Conformity

## The Manufacturer

BLANKOM Antennentechnik GmbH · Hermann-Petersilge-Str. 1 · 07422 Bad Blankenburg · Germany

herewith declares the conformity of the product

**Product name:** 19"/ 1 RU fan module with 3 ventilators

**Type:** PLU 103

**Product number:** 2946.20

according to the following regulations

EN 50083-2

EN 60728-11 (as far as relevant)

and additional device-specific regulations, enclosed above, which this product is subjected to.

**Date:** 01.07.2011

**Signature:**



Piero Kirchner  
(Managing Director)